

What is claimed is:

1. (Currently amended) A method of routing a wireless signal between two points, said method comprising the steps of:

transmitting a wireless signal from an originating transmitter;

receiving said wireless signal at a first set of repeating transceivers;

in each said repeating transceiver, delaying said wireless signal by at least one predetermined delay and re-transmitting said wireless signal;

such pre-determined delays in such transceivers being calculated to cause a desired alignment in time of arrival of such re-transmitted wireless signals at a destination receiver; and

receiving said re-transmitted wireless signals at said destination receiver;

demodulating said re-transmitted wireless signals separately within said destination receiver to produce a set of demodulated signals; and

summing said set of demodulated signals in a time-correlated manner which produces a summed demodulated signal which has a higher signal-to-noise ratio than the signal-to-noise ratio of any of said demodulated signals.

2. (Original) The method of claim 1, wherein the signal received at each said repeating transceiver is mixed to an intermediate frequency before said re-transmitting.

3. (Original) The method of claim 1, wherein the signal received at each said repeating transceiver is digitized before said re-transmitting.

4. (Original) The method of claim 1, wherein the signal received at each said repeating transceiver is processed through an FIR filter before said re-transmitting.

5. (Original) The method of claim 1, wherein the signal received at each said repeating transceiver is converted to an analog signal before said re-transmitting.

6. (Original) The method of claim 1, wherein the signal received at each said repeating transceiver is up-shifted in frequency before said re-transmitting.

7. (Original) The method of claim 1, wherein said predetermined delay is programmable.

8-14. (Withdrawn)

15. (Currently amended) A transceiver for use in a system for dynamically routing wireless signals, said transceiver comprising:

means for receiving a plurality of wireless signals;
modulating means for modulating said wireless signals to produce a set of modulated signals, said modulating means coupled to said receiving means;

means for digitizing said wireless-modulated signals into a plurality of digital signals, said digitizing means coupled to said modulating means;

summing means for aligning in time and summing said plurality of digital signals into a single digital sum signal with a signal-to-noise ratio higher than any of said digital signals.

means for delaying transmission of said wireless signal by a dynamically adjustable delay dependent on the intended routing of such signal, said delaying means coupled to said digitizing means;

means for amplifying said wireless signal, said amplifying means coupled to said delaying means; and

means for transmitting said wireless signal, said transmitting means coupled to said amplifying means.

16. (Original) A method of routing a wireless signal between two points, said method comprising the steps of:

transmitting a wireless signal as a plurality of wireless signals;

receiving said plurality of wireless signals at a repeating transceiver as a received plurality of wireless signals;

in said repeating transceiver, delaying each of said plurality of wireless signals by a separately predetermined delay to produce a set of delayed wireless signals;

combining said delayed wireless signals into a reconstituted wireless signal; and

re-transmitting said reconstituted wireless signal.

17. (Original) The method of claim 16, wherein each of said received plurality of wireless signals is mixed to an

intermediate frequency before being delayed by said separately predetermined delay.

18. (Original) The method of claim 16, wherein each wireless signal received at each said repeating transceiver is digitized before said re-transmitting.

19. (Original) The method of claim 16, wherein each wireless signal received at each said repeating transceiver is processed through an FIR filter before said re-transmitting.

20. (Original) The method of claim 16, wherein each wireless signal received at each said repeating transceiver is converted to an analog signal before said re-transmitting.

21. (Original) The method of claim 16, wherein said reconstituted wireless signal at each said repeating transceiver is up-shifted in frequency before said re-transmitting.

22. (Original) The method of claim 16, wherein each of said separately predetermined delays is programmable.

23. (New) The transceiver of claim 15, further comprising:
means for delaying said digital sum signal by a dynamically adjustable delay dependent on the intended routing of such signal, said delaying means coupled to said summing means;

digital-to-analog converting means for converting said digital sum signal to an analog sum signal; and means for transmitting said analog summed signal.

24. (New) The transceiver of claim 15, wherein said set of wireless signals are received at separate times on a single carrier frequency.

25. (New) The transceiver of claim 15, wherein said set of wireless signals are received on a plurality of carrier frequencies.